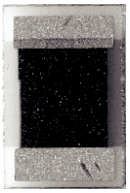
Thin Film 0304 Size Resistor on Alumina



Product may not be to scale

The CC6- series single-value resistor chips offer a small size, low shunt capacitance and solder pad option.
The CC6- nichrome resistors material offers excellent stability.

The CC6- resistors are manufactured using Vishay Electro-Films (EFI) sophisticated thin film equipment and manufacturing technology. The CC6- resistors are 100 % electrically tested and visually inspected to MIL-STD-883, method 2032 class H or K.

FEATURES

- Wire bondable
- Chip size: 0.030" x 0.045"
- Case: 0304
- Resistance range: 20 Ω to 59 kΩ
- Alumina substrate
- Low stray capacitance: < 0.2 pF
- Resistor material: Nichrome
- Resistor passivation coat optional
- Tolerances to 0.05 %
- Solder pad optional
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

Pb-free Available
RoHS* Available
HALOGEN FREE Available
GREEN (5-2008) Available

Note
* This datasheet provides information about parts that are RoHS-compliant and/or parts that are non-RoHS-compliant. For example, parts with lead (Pb) terminations are not RoHS-compliant. Please see the information/tables in this datasheet for details.

APPLICATIONS

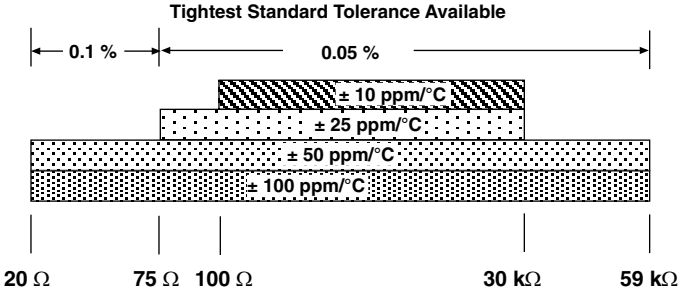
Vishay EFI CC6- chip resistors provide excellent high-frequency response and are ideally suited for prototyping.
Typical application areas are:

- Amplifiers
- Oscillators
- Attenuators
- Couplers
- Filters

Recommended for hermetic applications where die is not exposed to moisture.

TEMPERATURE COEFFICIENT OF RESISTANCE, VALUES, AND TOLERANCES

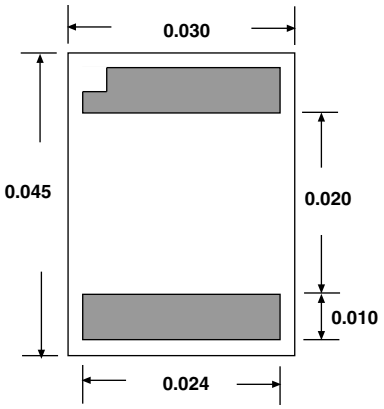
PARAMETER	VALUE	UNIT
Total Resistance Range	20 to 59K	Ω
Standard Tolerances	± 0.05, ± 0.1	%
TCR	± 10, ± 25, ± 50, ± 100	ppm/°C



STANDARD ELECTRICAL SPECIFICATIONS

PARAMETER	VALUE	UNIT
Noise, MIL-STD-202, Method 308	- 20 typ.	dB
Moisture Resistance, MIL-STD-202, Method 106 - Hermetic Applications	± 0.2 max. $\Delta R/R$	%
Stability, 1000 h, + 125 °C, 65 mW	± 0.1 max. $\Delta R/R$	%
Operating Temperature Range	- 55 to + 125	°C
Thermal Shock, MIL-STD-202, Method 107, Test Condition F	± 0.25 max. $\Delta R/R$	%
High Temperature Exposure, + 150 °C, 100 h	± 0.1 max. $\Delta R/R$	%
Dielectric Voltage Breakdown	400	V
Insulation Resistance	10^{12} min.	Ω
Operating Voltage	100 max.	V
DC Power Rating at + 125 °C (Derated to zero at + 150 °C)	0.065 max.	W
5 x Rated Power Short-Time Overload, + 25 °C, 5 s	± 0.25 max. $\Delta R/R$	%

DIMENSIONS in inches



SCHEMATIC

MECHANICAL SPECIFICATIONS

PARAMETER	VALUE
Chip Size	0.030" x 0.045" ± 0.003" (0.762 mm x 1.143 mm ± 0.076 mm)
Chip Thickness	0.010" ± 0.002" (0.25 mm ± 0.05 mm)
Chip Substrate Material	99.6 % alumina, 2 µ" to 4 µ" finish
Resistor Material	Nichrome
Bonding Pad Size	0.010" x 0.024" (0.254 mm x 0.61 mm) minimum
Number of Pads	2
Pad Material	25 kÅ minimum gold standard
Backing	None

GLOBAL PART NUMBER INFORMATION

Global Part Number: CC6-12500KKSSNHWS

Global Part Number Description: CC6- 1.25K 10 % 100 ppm/°C Std SnPb None H WS

C	C	6	-	1	2	5	0	0	K	K	S	S	N	H	W	S

MODEL	RESISTANCE	RESISTANCE MULTILPLIER CODE	TOL. CODE (%)	TCR (ppm/°C)	TRIM STYLE	TERMINATION	BACK METAL	VISUAL CLASS	PACKAGING CODE
CC6-	First 4 digits are significant figures of resistance	**B** = 0.01 **A** = 0.1 **0** = 1 **1** = 10	**A** = 0.05 **B** = 0.1 **C** = 0.25 **D** = 0.5 **F** = 1.0 **G** = 2.0 **J** = 5.0 **K** = 10.0	**E** = ± 25 **C** = ± 50 **K** = ± 100	**E** = Edg **S** = Std **U** = Usr	**G** = Au **S** = SnPb **A** = Al **T** = Lead (Pb)-free (e1)	**G** = Au **N** = None	**H** = Class H **K** = Class K	**WS** = Waffle pack 100 min., 1 mult **TS** = Tape and reel 100 min., 1 mult

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